Release B CDR RID Report

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Document CDR

RID ID	CDR	49
Review		Release B CDR
Originator Ref		
Priority	2	

Section	Page	Figure Table

Category Name MSS Design   **Actionee** ECS

Sub Category

Subject 14-day Active Storage for MSS is too little

Description of Problem or Suggestion:

Reports are generally generated on a monthly basis, very often with comparisons to previous months. This requires at least one month, and possibly 2 months of data in the database at a time.

Originator's Recommendation

Develop a means for running monthly reports on MSS data.

Investigate:
• Increasing disk capacity
• Providing ways of extracting operator-selected MSS data from the Data Server (e.g., by Sybase table or logical group of tables)
• Data warehousing strategies

Should also talk to each DAAC individually to determine sizing. For example, billing and accounting transactions may stay open for a very long time for sites dealing with international data. This should be taken into account during modeling/sizing.

GSFC Response by: **GSFC Response Date**

HAIS Response by: G. Mellis   **HAIS Schedule**

HAIS R. E. M. Armstrong   **HAIS Response Date** 7/18/96

The current MSS hardware design provides active storage of raw and detail MSS data. Raw data such as log files and COTS database files are locally stored for a period of fourteen days in RAID before they are moved into Data Server Subsystem deep archive. Detail data (raw data processed by the MDA) is directly written into the MSS database and stored in RAID for one month. The contents of the management database after one month is stored into deep archive. The fact that the management database was sized for one month's storage initially was not identified during CDR and should be noted. The suggested duration for active storage of MSS data per RID 49 is a minimum of one month and a preference for two months.

Per customer request, an analysis was performed to assess extending the active storage of detail data up to the two month period. Based on the analysis, it is recommended that detail data remain actively stored for a period of 6 weeks. This should allow adequate time for monthly report generation.

The MSS Subsystem group recommends the active storage of "summary data" for one year and billing and accounting transaction logs for three years. The summary data is a subset of the detail data and is primarily referenced to complete weekly, monthly and end of year reports. Sizing for summary data was estimated at one third the amount of the raw data. Extended active storage of the billing and accounting transaction logs is recommended to support billing & accounting periodic audits, and allow handling of international data.

To implement those items specified above in MSS hardware, additional storage is needed at the EDC,GSFC, LaRC, NSIDC and SMC DAAC sites. The approximate additional storage capacities needed are 150 GB for EDC, 160 GB for GSFC, 65 GB for LaRC, 40 GB for NSIDC and 200 GB for the SMC. Total estimated cost for upgrades has been separately provided to the RID sponsor.

Requests for detail data older than six weeks can be extracted from deep archive and/or restored from backup tape. Standard warehousing strategies will be used to allow the "roll in" of detail data and "roll off" of summary data. Through normal sybase database administration capabilities, selected portions of the MSS detail data can be accessed. It is estimated that a maximum of four months worth of detail data could be rolled into each of the perspective DAAC RAID devices (one month for the SMC).

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****** **Attachment if any** ******